

REMARKS

Receipt of the final Office Action dated October 18, 2002 is acknowledged. Applicants submitted a first response to the final Office Action on September 18, 2002. The PTO subsequently issued an Advisory Action on October 8, 2002..

I. Substance of the Personal Interview

Applicants thank the Examiner for the courtesies extended to Applicants' representatives during the personal interview on October 28, 2002. At the Interview, Applicants' representatives and the Examiner discussed the prior art of record in view of the pending claims. The amendments and comments below incorporate the substance of that interview.

Applicants acknowledge that such amendments are submitted after the issuance of a final Office Action. Accordingly, Applicants thank the Examiner for agreeing during the interview to consider the amendments. Moreover, these amendments should be entered as they place this application in condition for allowance and they place the application in better form for appeal by reducing and simplifying the issues for appeal. The amendment does not raise new issues that would require further search.

II. Status of the Claims

Claims 1–30 and 32–45 are pending. The Examiner indicated in the Advisory Action dated October 8, 2002 that claims 33–38 and 41–45 are allowed. Claims 5–10, 12–14, 17, 21, 23, 25, and 26 were indicated as being allowable but for their dependencies upon rejected base claims. Claims 1–4, 11, 15, 16, 18–20, 22, 24, 27–30, 32, 39, and 40 presently stand rejected.

The amendments to the claims do not introduce any new matter. Claims 1, 30, 32, 39, and 40 are each amended to recite that one or more lipophilic solvents must be present from 5 to 75% by weight. Support for the amendments can be found throughout the specification at originally filed, specifically in original claim 2 and in the specification at page 3, line 17.

III. Rejection of Claims Under 35 U.S.C. § 103(a)

Claims 1–4, 11, 15, 16, 18–20, 22, 24, 27–30, 32, 39, and 40 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Pat. No. 4,964,874 to Saphakkul ("Saphakkul") and the abstract for JP 58023898A ("JP '898").

In maintaining this rejection, the Examiner alleged that no lipophilic solvent need be present in the claimed composition. Additionally, the Examiner considered that the "fatty alcohol" component of the compositions disclosed by Saphakkul was tantamount to the claimed lipophilic solvent. Finally, the Examiner maintained the propriety of combining the references relating to hair products to obviate the claimed agricultural composition, buttressing this position by finding "ample" motivation to combine the references by virtue of each reference being directed to hair product compositions.

Office Action at page 2. Applicants respectfully traverse this rejection.

In contrast to the claimed invention, both Saphakkul and JP '898 disclose aqueous compositions where water is the solvent. Saphakkul discloses a hair dye composition comprising (a) up to 5% of a cationic surfactant; (b) up to 5% by weight of a fatty alcohol; (c) up to 5% of a basic dye; and (d) up to 5% of a neutral dye. (See Saphakkul at col. 2, lines 8 – 19; emphasis supplied). Additionally, the reference teaches that the four components are present in an aqueous medium in which water comprises up to 99% of the composition by weight. (See, Col. 2, line 25; col. 4, lines 12 – 13; *see also*, Example 1 (water is 90.77% by weight) and Example 2 (water is 95.75% by weight)). Saphakkul also refers repeatedly to pH adjustment, *see, e.g.*, col. 4, lines 31 – 58, which is applicable to only aqueous compositions. JP '898 discloses a shampoo that comprises (a) up to 1.5% of hydroxypropyl guar gum; (b) up to 20% of an alcohol with C₁₋₄ alkyl groups; (c) up to 50% of a surfactant; and (d) up to 7% of an electrolyte. The overwhelming majority (*e.g.*, up to 95%) of the composition is water. In view of the polar solutes that comprise the balance of the shampoo composition and the fact that the shampoo has "high transparency," it can be fairly said that water is the solvent. Thus Saphakkul and JP '898 are clearly limited to aqueous compositions where water is the solvent.

The claims, as amended, are directed to an agricultural composition comprising (a) 5 – 75% by weight of a lipophilic solvent; (b) at least one lipophobic plant nutrient; and (c) at least one cationic emulsifier that acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient.

The Examiner construes the “fatty alcohol” of Saphakkul as the claimed lipophilic solvent. However, Saphakkul itself plainly states otherwise: the reference states that “[t]he production of a disperse lamellar liquid crystal phase is most conveniently effected by the inclusion of a fatty alcohol . . .” (col. 2, lines 50 – 52) and that “such fatty alcohols [are] . . . sufficient to convert the cationic surfactant to the disperse lamellar liquid crystal phase.” (col. 2, lines 58 – 61). The clear teaching of Saphakkul is that the fatty alcohol is not a solvent but instead is present to form a distinct phase within the aqueous hair dye composition. Thus, Saphakkul and JP ‘898, either alone or in combination, do not disclose or suggest the claimed agricultural composition.

Moreover, the claims, as amended, recite that the lipophilic solvent is present in 5 to 75% by weight, which is neither taught nor suggested by Saphakkul or JP ‘898. Assuming, *arguendo*, that the “fatty alcohol” in Saphakkul is a lipophilic solvent, a contention Applicants clearly disagree with, one of ordinary skill in the art would still not have considered it obvious to arrive at the claimed composition in which a lipophilic solvent is present in a range *greater than* 5% by weight because Saphakkul discloses the presence of a fatty alcohol in a range of *no more than* 5% by weight. Consequently, neither Saphakkul or JP ‘898 teaches nor suggests the claimed compositions or methods.

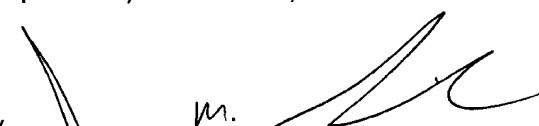
Finally, the rejection is improper because the references are in an art which is non-analogous to the instantly claimed invention. As discussed above, Saphakkul and JP ‘898 relate to hair products, whereas the claimed invention is directed to an agricultural composition. Consequently, a person of ordinary skill in the art would not have been motivated to combine Saphakkul and JP ‘898. For example, neither reference, nor a combination of the two, would not solve the problem of providing a stable homogeneous blend comprising a lipophilic solvent and lipophobic plant nutrient. The claimed invention, in contrast, represents an advance over the prior art because it allows the dissolution of an otherwise insoluble lipophobic plant nutrient in a lipophilic

solvent. See specification at page 2, line 29 to page 3, line 2. Neither reference purports to solve this problem specifically or even the problem of solubility generally. The hair dye compositions of Saphakkul are formulated carefully in order to avoid the staining of a user's hands. (See col. 1, line 61 to col. 2, line 2). JP '898 is simply silent as to any problem it may solve. Thus, a person of ordinary skill would have no reason to look to these two references in the hair products art to arrive at the inventive solution lying in the agricultural art, not in the least because the problem of lipophobic plant nutrient insolubility in lipophilic solvents does not arise in the context of hair products and is addressed by neither reference.

IV. Conclusion

In view of the foregoing, it is respectfully urged that the present claims are in condition for allowance. An early notice to this effect is earnestly solicited. Should there be any questions, Examiner Pryor is courteously invited to contact the undersigned at the telephone number shown below.

Respectfully submitted,

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MARKED UP VERSION OF THE CLAIMS SHOWING CHANGES MADE

1. (Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) [not in excess of about] from 5 to 75% by weight of one or more lipophilic solvents;
- (b) [not in excess of about 50% by weight of] one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) [not in excess of about 50%] a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

30. (Amended) An agrochemical composition comprising a chemical used in agriculture and an activity enhancing amount of a homogeneous liquid adjuvant, said homogeneous liquid adjuvant comprising:

- (a) [not in excess of about] from 5 to 75% by weight of one or more lipophilic solvents;
- (b) [not in excess of about 50% by weight of] one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) [not in excess of about 50%] a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

32. (Amended) A method for enhancing the activity of a chemical used in agriculture comprising the step of combining the chemical with a homogeneous liquid adjuvant comprising:

- (a) [not in excess of about] from 5 to 75% by weight of one or more lipophilic solvents;
- (b) [not in excess of about 50% by weight of] one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) [not in excess of about 50%] a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

39. (Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) [not in excess of about] from 5 to 75% by weight of one or more lipophilic solvents;
- (b) [not in excess of about 50% by weight of] one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) [not in excess of about 50%] a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having

cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and

(d) from 1 to 30% of one or more other components to improve the form of the composition.

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

40. (Amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) [not in excess of about] from 5 to 75% by weight of one or more lipophilic solvents;

(b) [not in excess of about 50% by weight of] one or more lipophobic plant nutrients present up to about 50% by weight; and

(c) [not in excess of about 50%] a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and

(d) from 1 to 30% of one or more other components to improve the form of the composition selected from the group consisting of nonionic emulsifiers, co-solvents and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.